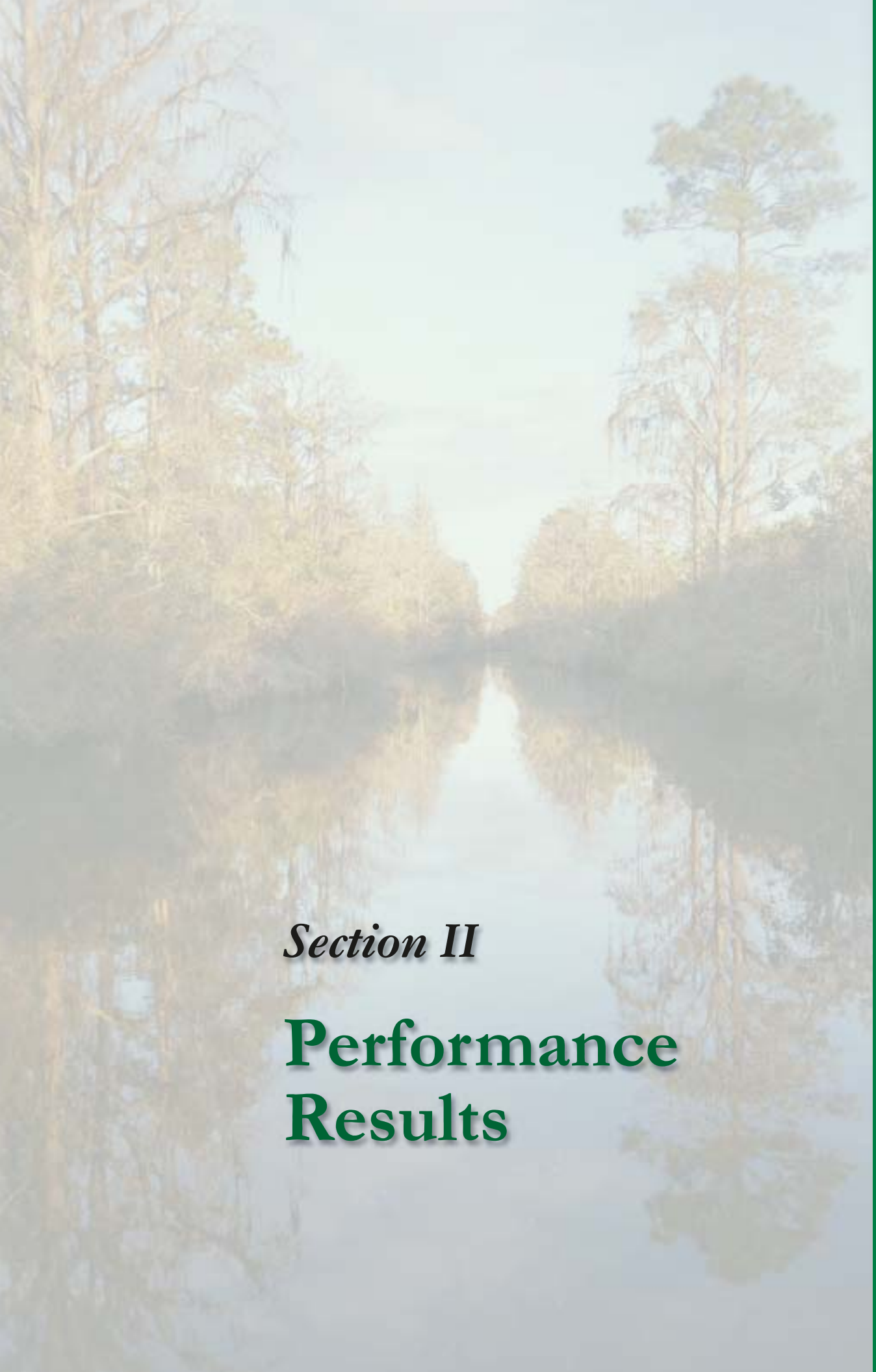
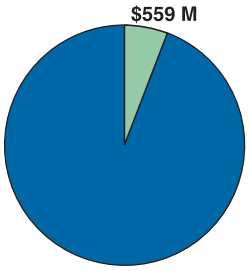


Section II

Performance Results

Goal 1 FY 2001 Obligations



Note: EPA FY 2001 Total Obligations were $9,007 million

GOAL 1: CLEAN AIR

The air in every American community will be safe and healthy to breathe. In particular, children, the elderly, and people with respiratory ailments will be protected from health risks of breathing polluted air. Reducing air pollution will also protect the environment, resulting in many benefits, such as restoring life in damaged ecosystems and reducing health risks to those whose subsistence depends directly on those ecosystems.

PROGRESS TOWARD STRATEGIC GOAL AND OBJECTIVES

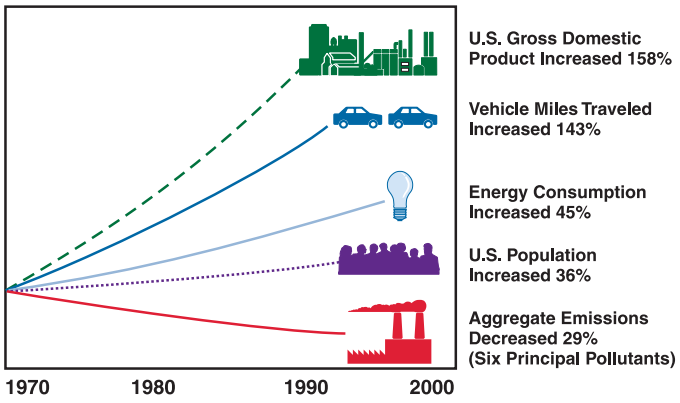
EPA, working with state, local, tribal, and other partners, continues to make steady progress toward the Clean Air goal and objectives. Since 1970 clean air programs have cut by 29 percent aggregate emissions of the six principal pollutants tracked nationally. These results have been achieved using a combination of regulatory actions, voluntary measures, market mechanisms, state partnerships, and stakeholder negotiations, often incorporating innovative approaches. During the same time period, U.S. Gross Domestic Product increased by 158 percent, energy consumption increased by 45 percent, and vehicle miles traveled increased by 143 percent. The Nation will continue in the future to realize health benefits from the reductions in ground-level ozone, particulate matter, and associated pollutants, especially sulfur dioxide (SO_2) achieved through the Clean Air Act Amendments of 1990.

SIX PRINCIPAL POLLUTANTS

Ozone (O_3)
Particulate Matter (PM)
Carbon Monoxide (CO)
Nitrogen Dioxide (NO_2)
Sulfur Dioxide (SO_2)
Lead (Pb)

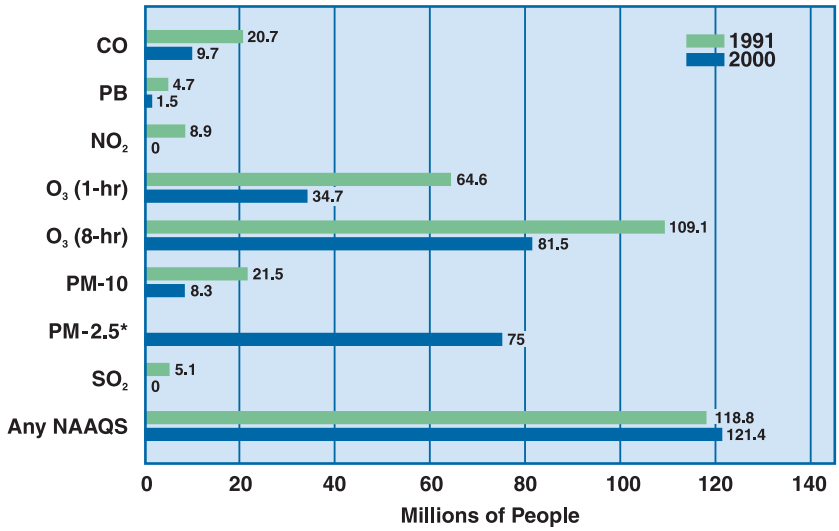
A county-by-county review of changes in the levels of the six principal pollutants over the past 10 years shows significant decreases in the number of people exposed to unhealthy levels of air pollution. During calendar year 2000 all counties where levels of nitrogen dioxide (NO_2) and SO_2 were measured met National Ambient Air Quality Standards (NAAQS). The number of people who live in counties where monitored levels of pollution exceed the NAAQS for carbon monoxide (CO) and the 1-hour standard for ozone (O_3) has been cut in half since 1991. The number of people who live in counties that do not meet the 8-hour ozone NAAQS is down by a third since 1991.

Comparison of Growth Areas and Emission Trends
(Between 1970 and 2000)



Concentrations of particulate matter (PM) also are down since 1991. In counties where pollution levels are measured, the number of people exposed to PM levels exceeding the NAAQS for particles 10 micrometers or less in diameter (PM-10) declined by 50 percent compared to 1991. Formidable challenges, however, still remain in reducing the risk from fine particulates 2.5 microns or less in diameter (PM-2.5). Based on initial monitoring data collected from 1999 to 2001, many areas across the Southeast, Midwest, and Mid-Atlantic regions and in California have air quality that may not meet the PM-2.5 NAAQS, based on initial monitoring data.

Populations of Counties With Air Quality Concentrations Above the NAAQS Level



* PM-2.5 monitoring network still under development in 2000; data is incomplete and may increase in subsequent years with fully deployed network. No data available for 1991.

EPA and its partners have been successful in efforts to reduce emissions of toxic air pollutants and are on track to meet the objective for reductions in air toxics. Emissions from area, mobile, and stationary sources have decreased by 35 percent from a 1993 baseline of 4.3 million tons. EPA anticipates that the technology-based Maximum Achievable Control Technology (MACT) standards, once fully implemented by states and tribes, will achieve at least a 50 percent reduction in air toxics emissions and some 1.5 million tons of toxics will be removed annually from stationary sources such as factories and industrial plants. Regulation of motor vehicles and fuels will further reduce emissions of air toxics which account for approximately 45 percent of the toxic emission in urban areas.

EPA's Acid Rain Program has met its strategic objective under Title IV of the Clean Air Act Amendments for nitrogen oxide (NO_x) emission reductions and is on track to achieve the 2010 strategic objective for SO_2 emission reductions. The program reduced average sulfate deposition between 1996 and 2000 by 10 percent from 1990–1994 levels nationwide and by 15 percent in the eastern United States. However, average nitrate deposition increased by three percent nationwide over the same time period. As part of the President's National Energy Policy, EPA worked to develop multi-emissions reductions proposals that will further reduce NO_x and other emissions from electric utilities.

FY 2001 PERFORMANCE

In FY 2001 EPA's Clean Air programs continued to: (1) provide direct support to states, tribes, and local agencies to carry out their Clean Air Act responsibilities; (2) develop the technical tools and information needed by states, tribes, and local agencies; and (3) develop and implement EPA standards and regulations, market-based and voluntary programs, and other innovative approaches.

Six Principal Pollutants

In FY 2001, 20 additional areas, with a total population of 4.5 million people, achieved the NAAQS for 1 of the 6 principal pollutants. This achievement is the result of sustained improvements in air quality and the fulfillment of other Clean Air Act requirements. Currently 46 percent of the people who live in counties where air quality is measured breathe air that meets the standards for all 6 principal pollutants.

For each of the six pollutants, EPA tracks trends in two factors: (1) measured pollutant concentrations in the ambient (outside) air at selected monitoring sites throughout the country, and (2) estimates of the total tons of pollutants released into the air each year. As the chart shows there has been significant improvement in air quality as measured through each of the six principal pollutants, as well as their precursors. A notable exception is NO_x emissions,

PERCENT CHANGE IN AIR QUALITY
(20-year vs. 10-year comparison)

	Concentrations		Emissions	
	1981–2000	1991–2000	1981–2000	1991–2000
Ozone–1-hr	-21	-10	—	—
Ozone–8-hr	-12	-7	—	—
Volatile Organic Compound	—	—	-32	-16
Particulate Matter 10	—	-19	-47	-6
Particulate Matter 2.5	—	—	—	-5
Carbon Monoxide	-61	-41	-18	-5
Sulphur Dioxide	-50	-37	-31	-24
Nitrogen Oxide	—	—	+4	+3
Nitrogen Dioxide	-14	-11	—	—
Lead	-93	-50	-94	-4

Data Source: Aerometric Information Retrieval System (AIRS)
■ precursor ■ principal pollutant

which contribute to fine particle pollution, smog, acid deposition, and eutrophication of surface waters.

NO_x emissions, which are an ozone precursor, continue to pose a serious threat to achieving clean air goals. EPA is working with the northeastern states that are members of the Ozone Transport Commission to reduce summertime NO_x emissions through an allowance trading system, the NO_x Budget Program, which was in its third year of operation in FY 2001. The Program harnesses market forces to reduce the cost of pollution control in two phases: the first phase began on May 1, 1999, and the second phase will begin on May 1, 2003. The program capped summertime NO_x emissions at 219,000 tons in 1999 and will cap 2003 emissions at 143,000 tons. (The 1990 baseline is 472,000.) In FY 2001 participating states emitted 174,100 tons of NO_x, which is well below the cap of 219,000 tons.

One of the major highlights of FY 2001 was the Supreme Court's unanimous decision to uphold the constitutionality of the Clean Air Act, as EPA had interpreted it, in setting the more health-protective NAAQS for ground-level ozone and particulate matter. Issues surrounding these standards still need to be resolved (e.g., Title I requirements, additional direction from the courts on ozone and 3 years of data on PM from new monitors.)

Heavy-duty diesel vehicles are responsible for 22 percent of the Nation's particle emissions and 15 percent of its NO_x emissions. In FY 2001 EPA issued far-reaching rules that will result in model year 2007 heavy-duty trucks and buses that are 90 percent cleaner than today's vehicles. The EPA rules, which consider diesel fuel and engines together as a single system, eliminate the equivalent of air pollution from 13 million of today's trucks. The large amounts of NO_x and PM emitted by diesel engines contribute to or aggravate serious public health problems in the United States, including lung cancer, respiratory and cardiovascular disease, asthma, acute respiratory symptoms, chronic bronchitis, and decreased lung function. By 2030, the new rules are expected to prevent more than 8,300 premature deaths, more than 9,500 hospitalizations, and approximately 1.5 million lost workdays each year.

Also in FY 2001 EPA launched the Voluntary Diesel Retrofit Program. This program builds partnerships among industries, community groups, and state and local officials to retrofit existing older vehicles to reduce their emissions, thereby resulting in cleaner, healthier air for communities. Boston, New York, Houston, Seattle, and Washington, DC, are active city partners in the program. New Jersey, California, and Texas are instituting statewide programs. As of January 2001 state and local governments and industry participants had committed to cleaning up 13,500 diesel trucks and buses, surpassing EPA's original goal of 10,000 vehicles. Retrofitting the diesel engines with emission control devices will eventually eliminate more than 15,000 tons of PM and NO_x from the air each year. By the end of FY 2001, an additional 55,000 commitments were made to retrofit trucks, buses, and construction vehicles with commercially available emission control technologies. More information is available at **http://www.epa.gov/otaq/retrofit/**.

EPA's extensive public outreach efforts included expanding its Air Quality Index (AQI) web site to include an AQI Kids' Page, **http://www.epa.gov/airnow/aqikids/aqi.html**. The AQI is an integral part of EPA's ongoing communication with the public. The AQI reports real-time air quality, provides forecasts of high pollution days, and informs the public about associated health concerns.

EPA has also partnered with the National Heart, Lung, and Blood Institute at the National Institutes of Health to provide information on air pollution to health care providers through projects associated with the National Asthma Education and Prevention Program. In addition, EPA produced an *Air Quality Guide for Particulate Matter*, an education and outreach pamphlet geared to the public that describes adverse health effects from PM exposure.

Air Toxics

Under the Clean Air Act, EPA is required to set emissions standards—known as MACT standards—for categories of major industrial sources emitting 188 listed air toxics. In FY 2001 EPA issued 4 MACT standards and proposed 13 more that will reduce toxic emissions from industrial facilities. EPA expects to propose all but nine of the remaining MACT standards by 2002. The proposed MACT rule for electric utilities is expected in December 2003 and final standards for the others are expected to be issued by 2004.

In FY 2001 EPA presented results from the draft National-Scale Air Toxics Assessment (NATA) to the public through the NATA web site, **http://www.epa.gov/ttn/atw/**. The assessment estimates exposures to air toxics across the United States and characterizes potential cancer and noncancer health effects. When the NATA is complete, the assessment will incorporate the 32 air toxics that present the greatest threat to public health. EPA will use the results to set priorities for the collection of additional air toxics data, including emissions data and ambient monitoring data, and to help guide the Agency as it transitions from setting technology-based emission standards for major industrial sources to targeting remaining risks.

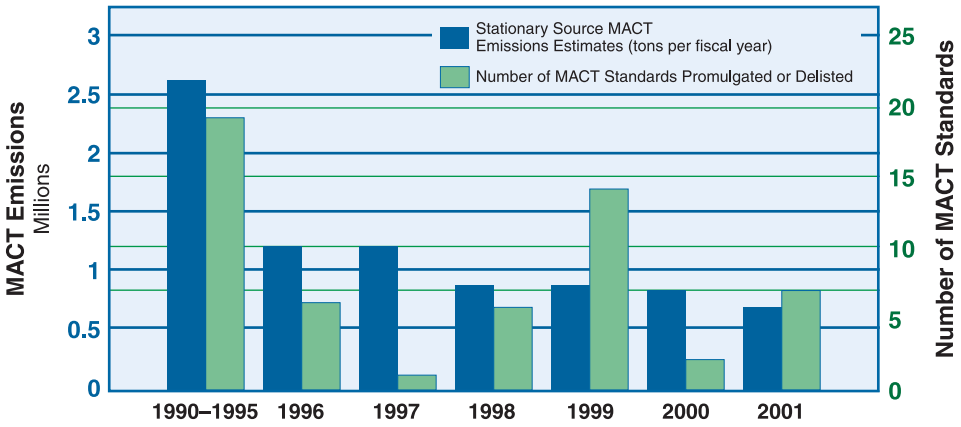
Acid Rain

In FY 2001 EPA successfully completed the first year of Phase II of the Acid Rain Program (**http://www.epa.gov/airmarkets/**), during which the SO_2 was expanded to include all fossil fuel-fired utility units serving an electric generator greater than 25 megawatts. Through these efforts the Agency is making progress toward the goal of reducing SO_2 emissions to 8.5 million tons. In addition, more than 1,000 coal-fired utility boilers also were required to meet an annual NO_x emission limit.

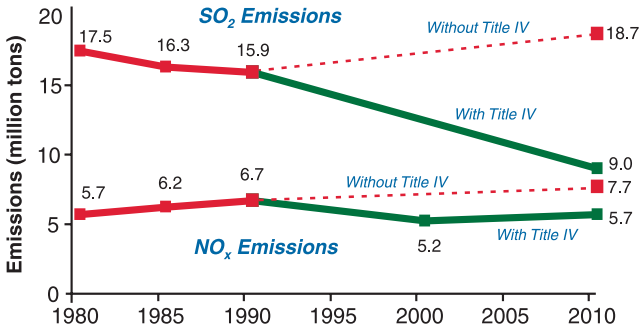
FY 2000 data show that SO_2 emissions from utility sources were 11.2 million tons, representing a decrease of 6.3 million tons in annual emissions compared to the 17.5 million tons emitted in 1980. NO_x emissions from coal-fired utility sources were 4.5 million tons in FY 2000, which is more than 2 million tons below projected emissions in the absence of the Clean Air Act Amendments of 1990.

Although the Acid Rain Program is well on the way to achieving the overall 2010 strategic objective for SO_2 and has already achieved the NO_x statutory program goal, NO_x emissions from non-utilities and regulated electric utilities are growing. Unlike SO_2 emissions, NO_x emissions from electric utilities are not capped. Rather, affected sources must meet limits on their emissions rates. Consequently, as demand for electricity increases

Maximum Achievable Control Technology (MACT) Issuance and Emission Reductions



Reductions in SO_2 and NO_x Emissions



over time, emissions may also rise. Researchers have concluded that the reductions in SO_2 and NO_x resulting from current Clean Air Act requirements will not be sufficient to bring about full ecosystem recovery from the effects of acid rain in sensitive areas of the northeastern United States. States have begun work on the NO_x State Implementation Plan (SIP) Call which is designed to mitigate significant transport of NO_x, one of the precursors of ozone across state boundaries in the eastern United States. The NO_x SIP Call requires selected states and the District of Columbia to revise their SIPs to include requirements for NO_x emissions reductions for selected source categories. Once fully implemented, these efforts will help offset rising NO_x emissions. As part of the President's National Energy Policy, EPA will work with Congress to develop multi-emissions legislation that will further reduce NO_x and other emissions from electric utilities.

Research Contributions

In FY 2001 EPA completed a year-long PM monitoring project that will help to establish the relationship between ambient concentrations of PM and personal, indoor, and outdoor residential and community levels and personal exposures. By reducing uncertainty in this area, EPA will be able to confirm the appropriateness of the PM NAAQS and support effective implementation of the NAAQS by states and tribes. In addition, by better understanding the ambient concentrations, exposures, and toxicity of PM, EPA will be better able to estimate the public health risks from current and future PM exposures, as well as the benefits of control programs.

To ensure timely consideration and use of the research results, a key step in the NAAQS decision-making process is development of the Air Quality Criteria Document (AQCD), used in the analysis of the NAAQS. The Second External Review Draft of the AQCD for particulate matter was completed and released for public comment and Clean Air Scientific Advisory Committee (CASAC) review in July 2001. A third External Review Draft was requested as a result of the CASAC review, delaying completion of the final AQCD until December 2002.

In addition, EPA completed health assessments for high-priority hazardous air pollutants to aid the Agency in its assessment of risks posed by toxic air pollutants and developed source emissions and control information for both mobile and stationary sources to guide cost-effective risk management decisions for atmospheric mercury compounds.

Program Evaluation

Appendix A contains descriptions of program evaluations completed in FY 2001 that support the overall Clean Air Goal. No program evaluations focused specifically on FY 2001 performance.

STATE AND TRIBAL PARTNER CONTRIBUTIONS

State and Local Partner Contributions

EPA and its partners continue to put in place flexible, streamlined, and cost-effective tools to reach the goal of clean air. Although the Clean Air Act is a federal law, the states have a pivotal role. Controlling air pollution requires special understanding of local needs and conditions. State and local agencies expend considerable effort in the face of rapid growth in many areas to maintain standards once they are reached, prevent significant deterioration, and protect visibility. Through EPA-approved SIPS, states describe how they will implement clean air standards. The states involve the public, through hearings and opportunities to comment, in the development of each SIP.

EPA's partnerships with states in FY 2001 include the following:

- In March 2001 EPA Administrator Christine Todd Whitman helped kick off a pilot project in Cleveland, Ohio, to cut health risks from toxic air pollutants. EPA, in cooperation with the city of Cleveland and the Ohio Environmental Protection

Agency, formed a group of residents, businesses, industry, environmental organizations, and city representatives to identify which risk reductions matter most to the citizens of Cleveland. The project is a nonregulatory, voluntary effort to look at risks posed by outdoor sources (i.e., cars) and indoor sources (i.e., cleaning agents and pesticides) in homes, schools, and businesses. It is a partnership designed by stakeholders, not by government.

- The city of Houston, the Texas Natural Resource Conservation Commission, and EPA worked closely to develop innovative approaches for reducing pollution in Houston, and incorporate them in the area's air quality plan. EPA's assistance includes quantifying the effects of certain innovative measures. For example, EPA is working with Lawrence Berkeley National Laboratory in estimating the impact of heat island reduction measures on temperature and ozone formation. On hot summer days urban air, or "heat islands," can be 2 to 10 degrees Fahrenheit hotter than the surrounding countryside and can increase ground-level ozone pollution.
- In FY 2001 the Pittsburgh-Beaver Valley Area of Pennsylvania, with a population of 2.4 million, was designated attainment for the 1-hour ozone standard. The area has consistently met the ozone standard from 1998 through 2000. This achievement marks the success of local pollution control programs, including controls on industry and utilities, the enhanced automobile emissions test, and the cleaner, low-volatility summer gasoline program.
- EPA has encouraged states and tribes across the United States to address visibility impairment from a regional perspective because the pollutants that lead to regional haze can originate from sources located across broad geographic areas. In FY 2000 states and tribes responded by forming five Regional Planning Organizations (RPOs), which are addressing regional haze and related issues. In FY 2001 as a first step before developing regional strategies to reduce haze causing emissions, the RPOs are evaluating technical information to better understand how their respective states and tribes affect national park and wilderness areas.

Tribal Contributions

Tribes continue to expand their responsibility for carrying out air pollution programs. While many tribes are beginning basic air quality assessments, attending training, and conducting inventories and preliminary monitoring, others are moving toward more advanced levels of air quality management, including developing regulations and planning permitting, inspection, and enforcement programs. Currently 116 tribes are receiving air grants from EPA. Tribal lands have, in operation, 155 ambient air monitors. In addition, many tribes are participating in national air policy efforts such as the RPOs.

Several examples of air quality accomplishments on tribal lands follow:

- The Gila River Indian Community, Fort McDowell Yavapai Nation, and Salt River Pima-Maricopa Indian Community entered into an innovative partnership with EPA, the state of Arizona, and Maricopa County air pollution control agencies to design and carry out an air toxics assessment of the Phoenix metropolitan area, which includes the three reservations. This is the first comprehensive air toxics assessment in the area.
- Tribes in the Northwest worked closely with EPA, states, and local governments to develop a set of proposed Federal Implementation Plan Model Rules. The proposed Model Rules will bring basic air quality regulations for NAAQS pollutants like PM to reservations in the area. Because state and local rules do not apply on reservations and many federal rules have never been implemented by tribes, a regulatory gap exists in Indian Country. This set of rules—agreed to by the state governments—brings basic protections to Indian Country.
- The Inter-Tribal Council (ITC) of Michigan launched a PM-2.5 air monitoring project in Sault Ste. Marie, Michigan. ITC designed the project to provide assistance to the Bay Mills Indian Community and the Sault Ste. Marie Tribe of Chippewa Indians in evaluating local air quality. The monitoring network is jointly operated by ITC and the partners—Environment Canada, Ministry of Environment Ontario, Michigan Department of Environmental Quality, and

EPA. ITC is cooperating with United States and Canadian partners to characterize air quality in the binational Sault Ste. Marie area.

ASSESSMENT OF IMPACTS OF FY 2001 PERFORMANCE ON FY 2002 ANNUAL PERFORMANCE

FY 2002 Annual Performance Goals (APGs) under Goal 1 reflect FY 2001 performance. For example, as EPA missed the FY 2001 target for ozone, the Agency has adjusted the FY 2002 goal to reflect the uncertainty states have experienced because of litigation over the 1997 NAAQS revisions. As remaining legal issues are resolved, EPA may need to review both APGs for ozone and PM as well as the long-term strategic goals. As EPA missed the combined target for CO, NO_2, SO_2, and lead in FY 2001, it increased the target for FY 2002 to reflect areas that the Agency had hoped to redesignate in FY 2001 that it now expects to redesignate in FY 2002.

PERFORMANCE DATA CHART

The following performance data chart includes performance results for the FY 2001 APGs that support Goal 1. The performance chart reflects the Agency's 1997 Strategic Plan goals and objectives with which FY 2001 APGs are associated. Relevant FY 2000 and FY 1999 APGs are included for ease in comparing performance. Data quality information for Goal 1 can be found on pages B-1 to B-6 of Appendix B, "Data Quality." Where applicable, the chart notes cases in which FY 2001 APGs are supported by National Environmental Performance Partnership System Core Performance Measures (NEPPS CPMs). Additionally, the chart provides results for FY 2000 and FY 1999 APGs for which data were not available when the FY 2000 report was published, as well as for FY 2000 APGs that are not associated with FY 2001 APGs.

Summary of FY 2001 Performance

1 Goal Met	3 Goal Not Met	3 Data Lag

Goal 1: Clean Air
Annual Performance Goals and Measures
FY 1999–FY 2001 Results

By 2010, Improve Air Quality for Americans Living in Areas That Do Not Meet NAAQS for Ozone and Particulate Matter.

Progress Toward Strategic Objective: As remaining legal issues are resolved, EPA may need to review both the annual goals and PM for ozone and the long-term strategic goals. Air quality has continued to improve over the past 10 years. Almost half of the ozone areas that were not in attainment with the 1 hour NAAQS in 1990 have been brought into attainment and have approved plans in place to keep the air clean. The number of people living in monitored counties exceeding the NAAQS has declined by nearly 50% compared to 1991 for the 1-hour ozone standard and is one-third less for the 8-hour NAAQS Concentrations of PM-10 are also down almost 20% since 1991. The number of people exposed to PM-10, in counties where pollution levels are measured, has been more than cut in half compared to 1991.

APG 1		Planned	Actual
FY 2001	**Maintain healthy air quality for 35.1 million people living in 44 areas attaining the ozone standard; increase by 1.9 million the number of people living in areas with healthy air quality that have newly attained the standard; and certify that 5 new areas have attained the 1-hour standard for ozone. Goal Not Met. ➥Corresponds with FY 2001 NEPPs Core Performance Measure (CPM).**	**35.1 M 1.9 M 5**	**38.2 M 3.5 M 3 areas**
FY 2000	*Maintain healthy air quality for 33.4 million people living in 43 areas attaining the ozone standard. Goal Met.*		*33.4 M*
FY 1999	*Eight additional areas currently classified as non-attainment will have the 1-hour ozone standard revoked because they meet the old standard. Goal Met.*		*10 areas*

FY 2001 Result: EPA maintained healthy air for 38.2 million* people living in 43 areas attaining the ozone standard and increased by 3.5 million the number of people living in areas with healthy air quality that newly attained the standard by certifying that three new areas attained the 1-hour standard. EPA redesignated three of the five areas estimated to come into attainment for the 1-hour ozone standard in FY 2001 and exceeded its target by nearly 50% for increasing the number of people living in areas with healthy air quality. One area was redesignated back to nonattainment pending completion of required volatile organic compound (VOC) control measures that were part the State Implementation Plan requirement.

EPA works hand-in-hand with states to determine the pipeline for redesignation requests. From there EPA sets annual targets for areas to be redesignated, based upon state input. Population estimates are derived from the redesignation estimates. (States may delay submitting a request for redesignation which in turn impacts the EPA targets. For example, a state may have three years of clean air data but may defer requesting redesignation because of higher priority air work.) Once a state submits a request, EPA reviews the request and makes a designation determination. Should a state not submit an expected redesignation request, EPA goes back and works with the state to get a new estimate of when to expect a redesignation request.

EPA did not meet its redesignation target in 2001 primarily because of the uncertainty among states as they await resolution on outstanding issues on the transition from the 1-hour to 8-hour ozone standard. To date 41.6 million people live in 46 areas that have been redesignated to attainment for the ozone standard.

*NOTE: Beginning with FY 2001 results, EPA will use 2000 Census data to report population. Given this, note that the target for maintaining air quality for 35.1 million was updated to 39.7 million people to reflect 2000 Census data but was offset by one area's being redesignated to nonattainment, thereby reducing the population number to 38.2 million.

APG 2		Planned	Actual
FY 2001	**Maintain healthy air quality for 1.276 million people living in 9 areas attaining the particulate matter (PM) standards; increase by 60,000 the number of people living in areas with healthy air quality that have newly attained the standard. Goal Met.** ➥**Corresponds with FY 2001 NEPPS CPM.**	**1.276 M** **60,000**	**1.189 M** **2.249 M**
FY 2000	*Maintain healthy air quality for 1.2 million people living in 7 areas attaining the PM standards, and increase by 60,000 the number of people living in areas with healthy air quality that have attained the standard. Goal Met.*		*1.2 M* *75,800*
FY 1999	*Deploy particulate matter 2.5 ambient monitors including mass, continuous, speciation and visibility resulting in a total of 1,500 monitoring sites. Goal Met.*		*1,110*

FY 2001 Result: EPA maintained healthy air for 1.189 million* people living in 9 areas attaining the PM standards and increased by 2.249 million the number of people living in areas with healthy air quality that have newly attained the standard. EPA had expected to redesignate six areas to attainment when in fact it was able to redesignate two additional areas for a total of eight areas. To date 3.4 million people live in 17 areas redesignated to attainment for the PM standard.

*NOTE: Beginning with FY 2001 results, EPA will use 2000 Census data to report population. Given this, note that the target for maintaining air quality for 1.276 million people is updated to 1.189 million people to reflect 2000 Census data.

APG 3		Planned	Actual
FY 2001	**Provide new information on the atmospheric concentrations, human exposure, health effects and mechanisms of toxicity of particulate matter, and facilitate PM National Ambient Air Quality Standards (NAAQS) review through Air Quality Criteria Document (AQCD) development and consultation. Goal Not Met.**		
	Performance Measures		
	- Complete PM longitudinal panel study data collection and report exposure data.	**1**	**1**
	- Report on health effects of concentrated ambient PM in healthy animals and humans, in asthmatic and elderly humans, and in animal models of asthma and respiratory infection.	**1**	**1**
	- Final PM AQCD completed.	**1**	**0**
FY 2000	*Provide new information on the atmospheric concentrations, human exposure, and health effects of PM, including PM-2.5, and incorporate it and other peer-reviewed research findings in the Second External Review Draft of the PM AQCD for NAAQS Review. Goal Met.*		
	Performance Measures		
	- Hold CASAC Review of draft PM AQCD.		*9/30/00*
	- Longitudinal Panel Study on exposure of susceptible sub-populations to PM.		*1*
	- PM Monitoring Study Data.		*9/30/00*
	- Baltimore Study on Response of Elderly to PM.		*1*
FY 1999	*Identify and evaluate at least two plausible biological mechanisms by which PM causes death and disease in humans. Goal Met.*		*2*

FY 2001 Result: EPA provided new information on the atmospheric concentrations, human exposure, health effects, and mechanisms to toxicity of particulate matter. The Second External Review Draft of the PM AQCD was completed and released for public comment and Clean Air Scientific Advisory Committee (CASAC) review according to schedule in July 2001. However, a Third External Review Draft was requested as a result of the CASAC review, delaying the completion of the final AQCD until December 2002. These modified data also

represent current estimated delays related to activities involving EPA staff and expert consultants regarding the terrorist attack on the World Trade Center.

By 2010, Reduce Air Toxic Emissions by 75% from 1993 Levels to Significantly Reduce the Risk to Americans of Cancer and Other Serious Adverse Health Effects Caused by Airborne Toxics.

Progress Toward Strategic Objective: EPA is on track to meet its strategic objective. The Agency is making steady progress in reducing emissions and the associated health risks from air toxics by reducing toxic emissions from industrial sources, reducing emissions from vehicles and engines through new emission standards and cleaner-burning gasoline, and addressing indoor toxics pollution through voluntary programs. Looking at the 33 hazardous air pollutants (HAPs) that present the greatest threat to public health in the largest number of urban areas, a 46% reduction in emissions of those air toxics will occur between the 1990–1993 baseline and the year 2007. (Currently, half of the air toxic emissions are from mobile sources. Projections indicate that an approximate 40% reduction in the remaining mobile source emissions can be expected by 2007. This reduction can be attributed primarily to clean fuel rules issued in recent years that will be implemented in the future.) These reductions do not account for the roughly 150 HAPs beyond the 33 HAPs. In 2007 and beyond, a much greater percentage of air toxic emissions will be from stationary sources and will need to be addressed by residual risk initiatives and/or standards and urban area air toxics programs.

APG 4		Planned	Actual
FY 2001	**Air toxics emissions nationwide from stationary and mobile sources combined will be reduced by 5% from 2000 (for a cumulative reduction of 35% from the 1993 level of 4.3 million tons per year.) Data Lag. ➥Corresponds with FY 2001 NEPPS CPM.**	**5%**	**data available in 2004**
FY 2000	*Air toxic emissions nationwide from both stationary and mobile sources combined will be reduced by 3% from 1999 (for a cumulative reduction of 30% from the 1993 levels of 4.3 million tons). Data Lag.*	*3%*	*data available in 2004*
FY 1999	*Reduce air toxic emissions by 12% in FY 1999, resulting in cumulative reduction of 25% from 1993 levels. Data Lag.*	*12%*	*data available in 2002*

FY 2001 Result: End of year FY 2001 data will be available in late 2004 to verify that air toxics emissions nationwide from stationary and mobile sources combined will be reduced by 5% from 2000 emissions (for a cumulative reduction of 35% from the 1993 level of 4.3 million tons).

By 2005, Improve Air Quality for Americans Living in Areas That Do Not Meet the NAAQS for Carbon Monoxide, Sulfur Dioxide, Lead, and Nitrogen Dioxide.

Progress Toward Strategic Objective: The Agency is on track to meet its strategic objective. During calendar year 2000, all counties where levels of NO_2 and SO_2 were measured through air monitoring met the NAAQS. The number of people who live in counties where monitored levels of pollution exceed the NAAQS for CO has been cut in half since 1991. Through 2000 fewer than 2 million people lived in counties where lead levels exceeded the NAAQS.

APG 5		Planned	Actual
FY 2001	**Maintain healthy air quality for 31.1 million people living in 56 areas attaining the carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), and lead standards; increase by 13.2 million the number of people living in areas with healthy air quality that have newly attained the standard. Goal Not Met. ➥Corresponds with FY 2001 NEPPS CPM.**	**31.1 M 13.2 M**	**36.3 M 0.4 M**
FY 2000	*Maintain healthy air quality for 27.7 million people living in 46 areas attaining the CO, SO_2, NO_2, and lead standards, and increase by 1.1 million the number of people living in areas with healthy air quality that have attained the standard. Goal Met.*		*27.7 M 3.41 M*
FY 1999	*Certify that 14 of the 58 estimated remaining nonattainment areas have achieved the NAAQS for carbon monoxide, sulfur dioxide, or lead. Goal Met.*		*13*

FY 2001 Result: EPA maintained healthy air for 36.3 million* people living in 56 areas attaining the CO, SO_2, NO_2, and lead standards and increased by 418,000 the number of people living in areas with healthy air quality that newly attained the standard. In FY 2001 EPA had expected to take final action on 12 CO redesignation requests. At the end of FY 2001, EPA had taken final action on 4 and was reviewing an additional 10. EPA redesignated two areas for SO_2 as planned and redesignated three areas for lead.

EPA works hand-in-hand with states to determine the pipeline for redesignation requests. From there EPA sets annual targets for areas to be redesignated based upon state input. Population estimates are derived from the redesignation estimates. (States may delay submitting a request for redesignation which in turn impacts the EPA targets. For example a state may have three years of clean air data but may defer requesting redesignation because of higher priority air work.) Once a state submits a request, EPA reviews the request and makes a designation determination. Should a state not submit an expected redesignation request, EPA goes back and works with the state to get a new estimate of when to expect a redesignation request. EPA did not meet its population target of 13.2 million because the areas with smaller populations were the ones on which final action could be taken.

*NOTE: Beginning with FY 2001 results, EPA will use 2000 Census data to report population. Given this, note that the target for maintaining air quality, 31.1 million people, is updated to 36.3 million people to reflect 2000 Census data.

By 2010, Ambient Sulfates and Total Sulfur Deposition Will Be Reduced by 20-40% From 1980 Levels Due to Reduced Sulfur Dioxide Emissions From Utilities and Industrial Sources. By 2000, Ambient Nitrates and Total Nitrogen Deposition Will Be Reduced by 5-10% From 1980 Levels Due to Reduced Emissions of Nitrogen Oxides From Utilities and Mobile Sources.

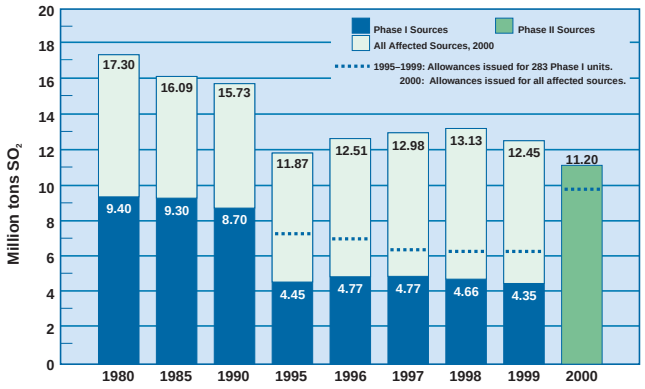
Progress Toward Strategic Objective: The Agency has met its objective for NO_x under the statutory Acid Rain Program and is on track to meet its statutory goal for SO_2. The program sets a permanent cap on the total amount of SO_2 that may be emitted by power plants nationwide at about half of the amount emitted in 1980. For SO_2 an emissions trading program gives utilities the flexibility and incentive to reduce emissions at the lowest cost, while ensuring that the overall emission limit is met.

APG 6		Planned	Actual
FY 2001	**Maintain annual reduction of approximately 5 million tons of SO_2 emissions from utility sources from 1980 baseline. Keep annual emissions below level authorized by allowance holdings and make progress towards achievement of Year 2010 SO_2 emissions cap. Data Lag.**	**5 M**	**data available in late 2002**
FY 2000	*5 million tons of SO_2 emissions from utility sources will be reduced from the 1980 baseline. Goal Met.*	*5M*	*6.3 M*
FY 1999	*Maintain 4 million tons of SO_2 emissions reduction from utility sources. Goal Met.*		*5.04 M*

FY 2001 Result: End of year FY 2001 data will be available in late 2002 to verify that 5 million tons of SO_2 emissions from utility sources were reduced from the 1980 baseline.

FY 2000 Result Available in FY 2001: 6.3 million tons of SO_2 emissions from utility sources were reduced from the 1980 baseline.

SO_2 Emissions Covered Under the Acid Rain Program



Note: The calculated historical emissions (1980–1990) of utility units affected in the Acid Rain Program in 2000 are not precisely equal to "official" baseline values of units in the NAPAP (National Acid Precipitation Assessment Program) inventory.

APG 7		Planned	Actual
FY 2001	**Two million tons of nitrogen oxides (NO_x) from coal-fired utility sources will be reduced from levels that would have been emitted without implementation of Title IV of the Clean Air Act Amendments. Data Lag.**	**2 M**	**data available in late 2002**
FY 2000	*2 million tons of NO_x emissions from coal-fired utility sources will be reduced from the levels before implementation of Title IV of the Clean Air Act Amendments. Goal Met.*	*2M*	*2 M*
FY 1999	*Maintain 300,000 tons of NO_x reduction from coal-fired utility sources. Goal Met.*		*420,000*

FY 2001 Result: End of year FY 2001 data will be available in late 2002 to verify that 2 million tons of SO_2 emissions from utility sources were reduced from the 1980 baseline.

FY 2000 Result Available in FY 2001: Two million tons of NO_x emissions from coal-fired utility sources were reduced from the levels before implementation of Title IV of the Clean Air Act Amendments.

FY 2000 Annual Performance Goals (No Longer Reported for FY 2001)

Provide new information and methods to estimate human exposure and health effects from high priority urban air toxics, and complete health assessments for the highest priority hazardous air pollutants (including fuel/fuel additives). (This annual goal is maintained for internal reporting.)